

CLAIMS

What is claimed is:

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1. An electrode structure of a plasma display panel (PDP),
the electrode structure formed on a front substrate of the
PDP, and comprising:
 a first sustaining electrode and a second sustaining
 electrode set on the surface of the front substrate, and a
 first gap existing between the first and second sustaining
 electrodes, the first sustaining electrode having a first side
 approaching to the second sustaining electrode and a second
 side far from the second sustaining electrode; and
 a first auxiliary electrode electrically connected to the
 first sustaining electrode, the first auxiliary electrode
 comprising a first part and a second part, the first part formed
 in the first gap, and the second part located above the first
 sustaining electrode and adjacent to the first side of the
 first sustaining electrode;
 wherein a second gap exists between the first part of the
 first auxiliary electrode and the second sustaining electrode,
 and the width of the second gap is smaller than the width of
 the first gap.
2. The structure of claim 1 wherein the first auxiliary
 electrode further comprises a third part approaching to the
 second side of the first sustaining electrode.
3. The structure of claim 2 wherein the third part of the first
 auxiliary electrode is located on the first sustaining
 electrode.
4. The structure of claim 2 wherein the third part of the first
 auxiliary electrode is located on the surface of the front
- 30

substrate.

5. The structure of claim 2 wherein the PDP further comprises a back substrate parallel to the front substrate and a plurality of ribs formed on the back substrate and parallel to each other, and the plurality of ribs being perpendicular to the first auxiliary electrode.
6. The structure of claim 5 wherein the first auxiliary electrode further comprises a fourth part parallel to the ribs.
7. The structure of claim 1 wherein the second sustaining electrode comprises a third side far from the first sustaining electrode, and the electrode structure also comprises a second auxiliary electrode approaching to the third side of the second sustaining electrode.
8. The structure of claim 1 wherein the first and the second sustaining electrodes are defined and patterned by a first lithographic process, and the first auxiliary electrode is defined and patterned by a second lithographic process.
9. An electrode structure of a plasma display panel (PDP), the electrode structure formed on a front substrate of the PDP, and comprising:
- 20 a first sustaining electrode and a second sustaining electrode formed on the front substrate, and a first gap existing between the first and second sustaining electrodes; and
- 25 a first auxiliary electrode formed on the surface of the substrate in the first gap;
- 30 wherein a second gap exists between the first auxiliary

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electrode and the second sustaining electrode, and the width of the second gap is smaller than the width of the first gap.

10. The structure of claim 9 wherein the first sustaining electrode comprises a first side approaching to the second sustaining electrode and a second side far from the second sustaining electrode, the first auxiliary electrode comprises a first part and a second part, the first part is formed in the first gap, and the second part is located approaching to the second side of the first sustaining electrode.

15 11. The structure of claim 10 wherein the second part of the first auxiliary electrode is formed above the first sustaining electrode.

12. The structure of claim 10 wherein the second part of the first auxiliary electrode is formed on the surface of the front substrate.

20 13. The structure of claim 9 wherein the second sustaining electrode comprises a third side far from the first sustaining electrode, and the electrode structure further comprises a second auxiliary electrode approaching to the third side of the second sustaining electrode.

25 14. The structure of claim 9, further comprising a third auxiliary electrode located in the first gap, and a third gap existing between the third auxiliary electrode and the first sustaining electrode.

30 wherein the width of the third gap is smaller than the width of the first gap.

15. The structure of claim 14 wherein the first auxiliary electrode is electrically connected to the first sustaining electrode, and the third auxiliary electrode is electrically connected to the second sustaining electrode.

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~~16. The structure of claim 9 wherein the first sustaining electrode comprises a first side approaching to the second sustaining electrode and a second side far from the second sustaining electrode, and the first auxiliary electrode is formed on the surface of the front substrate and adjacent to the first side of the first sustaining electrode.~~

17. An electrode structure of a plasma display panel (PDP),
the electrode structure formed on a front substrate of the
15 PDP, and comprising:

a first sustaining electrode formed on the surface of the front substrate;

a first auxiliary electrode formed on the surface of the front substrate and parallel to the first sustaining electrode, a first gap existing between the first sustaining electrode

20 a first gap existing between the first sustaining electrode
and the first auxiliary electrode; and

a second auxiliary electrode formed on the surface of the front substrate and parallel to the first sustaining electrode, a second gap existing between the first sustaining electrode and the second auxiliary electrode, and the width of the second gap being smaller than the width of the first gap.

18. The structure of claim 17 wherein the first sustaining electrode comprises a first side approaching to the second auxiliary electrode and a second side far from the second auxiliary electrode, and the electrode structure comprises a third auxiliary electrode adjacent to the second side of

the first sustaining electrode.

5 19. The structure of claim 18 wherein a connecting electrode
is formed between the first and the second auxiliary electrode,
and the connecting electrode is formed on the surface of the
front substrate and perpendicular to the first auxiliary
electrode.

10 20. The structure of claim 18, further comprising a fourth
auxiliary electrode formed on the surface of the front
substrate, the fourth auxiliary electrode formed between the
first and the second auxiliary electrode, a third gap existing
between the fourth auxiliary electrode and the first
sustaining electrode, and the width of the third gap is smaller
15 than the width of the first gap.

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